



SEE. KNOW. PERFORM.

Every digital initiative starts with an OT data foundation you can trust.



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Discover the
Right OT Data
Solution For You



www.matrikon.com

Your Foundation for Secure, Enterprise-wide OT Data

The Matrikon Data Broker (MDB) platform connects, contextualizes, and utilizes operational data securely across systems, sites, and departments with one unified OT data layer.

Secure by Design

- Reverse Connect, encrypted transport, and role-based access controls

Context-Rich

- Map and model OT data to fit any consumer, without altering your source systems

Standards-Based

- OPC UA, MQTT, and other open protocols for lasting interoperability

Resilient

- Built-in redundancy and fault-tolerance for mission-critical operations

Scalable Anywhere

- From single-site plants to globally distributed operations

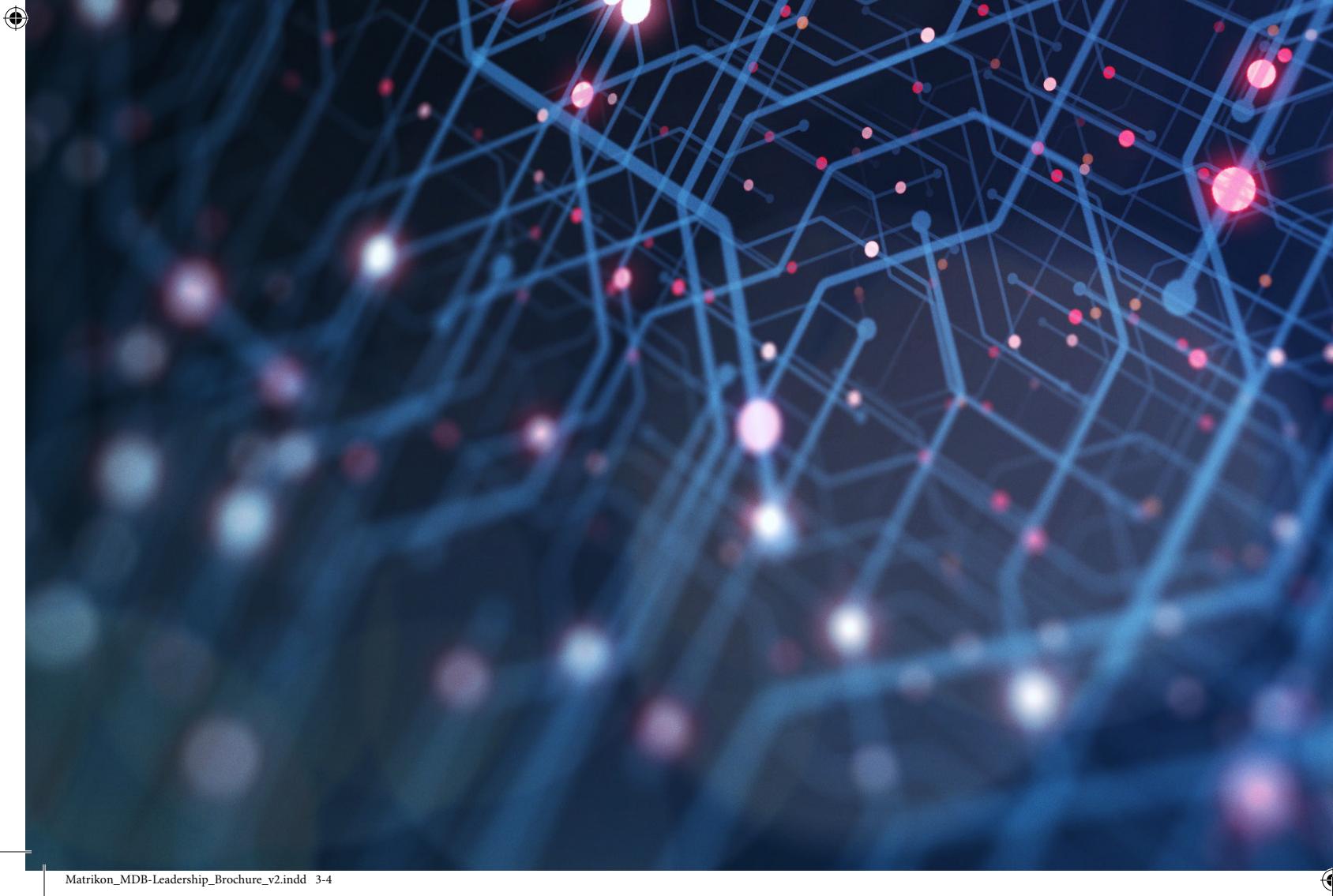


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Industry Outcomes

From Field to Factory to Lab

One Platform. Every Industry.
One Source of Truth.

Across every sector, the barriers are the same: siloed systems, legacy infrastructure, and incomplete visibility. Matrikon Data Broker's single, secure OT data layer cuts through the complexity, contextualizing and sharing operational truth across teams, plants and industries. From pharma labs to power grids, MDB turns fragmented data into a foundation for compliance, innovation, and growth.



Pharma & Life Sciences

MDB's Impact

Accelerates validation and digital traceability

How It Happens

- Delivers structured, audit-ready OT data for GxP compliance
- Supports batch data contextualization for digital twins and analytics



Oil & Gas

MDB's Impact

Enhance visibility, reduce risk, and scale modernization

How It Happens

- Enables secure access to field data across segmented networks
- Supports phased migration from legacy to modern systems



Manufacturing

MDB's Impact

Unify plant data to improve quality, throughput, and agility

How It Happens

- Structures OT data for use in MES, ERP, and AI tools
- Connects legacy and smart assets into one usable data layer



Power & Utilities

MDB's Impact

Strengthen grid reliability and reduce downtime response

How It Happens

- Delivers resilient OT data to enterprise systems in near real-time
- Enables secure remote data access without inbound firewall changes



Water & Wastewater

MDB's Impact

Improve operational visibility and simplify compliance reporting

How It Happens

- Standardizes and consolidates data from diverse OT systems
- Feeds structured data into central monitoring and reporting platforms



Buildings & Infrastructure

MDB's Impact

Drive energy efficiency, tenant comfort, and ESG performance

How It Happens

- Unifies building systems data for energy, comfort, and maintenance dashboards
- Supports secure cloud publishing and cross-site scaling for automation and reporting



Specialty Chemicals

MDB's Impact

Ensure safety and enable predictive operations

How It Happens

- Delivers contextualized process data to safety and analytics systems
- Maintains data lineage and traceability for compliance and root cause



Mining

MDB's Impact

Standardize data access across distributed operations

How It Happens

- Makes OT data usable across control systems and corporate platforms
- Supports contextual, timestamp-aligned data for production optimization

One Single Source of Truth.
Compounding Value Across All Industries

Strategic Role of OT Data

Secure, contextual OT data turns leadership goals into measurable results.



Chief Information Officer (CIO)

What MDB Unlocks

Digital transformation with the security, governance, and visibility your enterprise demands.

How MDB Makes It Possible

- Secure OT data access aligned with IT policies
- Governance-ready pipelines for quality, traceability, and compliance
- Enterprise-wide visibility through open standards (OPC UA, MQTT)
- Reliable access control to enable sharing without risk



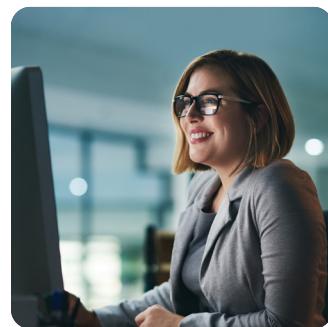
OT / Engineering Director

What MDB Unlocks

Uptime, control, and modernization without disruption.

How MDB Makes It Possible

- Securely connects SCADA, PLCs, and historians without downtime
- Controls exposure to external systems without compromising safety
- Simplifies contextualization for diagnostics and insights
- Enables phased transitions



Chief Technology Officer (CTO)

What MDB Unlocks

Modernization across fragmented systems without added risk.

How MDB Makes It Possible

- Bridge legacy systems with modern cloud and analytics platforms
- Standardize data delivery through a unified architecture
- Accelerate innovation projects with plug-in connectors and policy-based control
- Future-proof with open standards and modular scalability



Business / Operations Leader

What MDB Unlocks

Smarter operations, ESG accountability, and faster decisions.

How MDB Makes It Possible

- Real-time access to KPIs, ESG metrics, and asset performance
- Data-driven insights for efficiency, safety, and investments
- Cross-department visibility reduces silos and improves execution
- Trusted data ensures faster, confident response to events



IT Director / Architect

What MDB Unlocks

Secure OT-to-IT alignment and cloud readiness.

How MDB Makes It Possible

- Safe transfers via reverse-connect architecture
- Integrates real-time, historical, and contextual data with IT/cloud systems
- Deploys flexibly across edge, core, hybrid, and cloud environments
- Centralized monitoring and policies streamline operations



Engineering & Integration Teams

What MDB Unlocks

Efficient, reliable data flows across complex systems.

How MDB Makes It Possible

- Unified flows eliminate protocol translation and data stitching
- Contextualized live + historical data accessible in one place
- Prebuilt adapters and APIs speed project delivery
- Flexible namespace design streamlines validation, testing, and deployment

One Data Layer, Six Dimensions of Impact

Unify Your OT Data Once.
Use It Everywhere.

Achieving digital transformation, AI-readiness, ESG reporting, and enterprise automation depends on consistent, trusted access to industrial data — not just in one system or site, but across your business.

Matrikon Data Broker creates a Unified OT Data Layer (UODL) to make OT data accessible, structured, secure, and scalable and ready for cross-functional use from control room to boardroom.

Whether you're modernizing a single line or connecting global operations, MDB delivers what's needed to build once and use everywhere. Each category adjacent reflects a key capability area that turns fragmented OT data into a strategic advantage.



Data Technology (DT): The Missing Layer for OT/IT Success.

Traditional IT and OT tools alone weren't designed to unify industrial data at scale. Matrikon Data Broker introduces Data Technology (DT), a new category of software that bridges OT diversity and IT demands behind the scenes. DT creates a unified, secure OT Data Layer that transforms operational data into enterprise value.

“The Unified OT Data Layer ensures every system, role, and initiative has the trusted data it needs — when and how it's needed.”



One Data Layer, Six Dimensions of Impact

Matrikon Data Broker's six solution pillars provide a comprehensive, structured framework for turning raw OT signals into reliable, actionable data. Here's how MDB allows leaders, engineers, and business teams to operate at scale, innovate with confidence, and deliver results without compromise.

1 Trusted & Secure OT Data

Protect OT data while ensuring the right access.

- Enforces policy-based access at tag, system, or role level
- Minimizes cyber exposure with reverse-connect architecture
- Simplifies audits via logging and identity-aware controls

3 Intelligent OT Data Context & Transformation

Deliver rich OT data context across roles, tools, and sites.

- Makes user-defined models and views (via companion specs) enterprise-wide
- Preserves source metadata and relationships for traceability
- Reuses OT data in business, engineering, and AI tools — no custom prep

5 Scalable Governance & Lifecycle Management

Control OT data flow and access at scale.

- Centrally manages policies and data sharing rules
- Adapts to evolving needs with modular adapters
- Provides visibility into usage and change tracking

2 Seamless & Open Connectivity

Connect old, new, and third-party systems with open standards.

- Natively supports OPC UA, OPC Classic, and MQTT
- Provides backward-compatible options for legacy systems
- Enables multi-vendor, multi-protocol setups without lock-in

4 High Availability & Operational Resilience

Keep data flowing during failures, disruptions, or migrations.

- Buffers and re-sends lost data from supported sources (OPC UA HA)
- Supports multi-path routing and fault-tolerant architectures
- Reduces recovery efforts and downtime risk

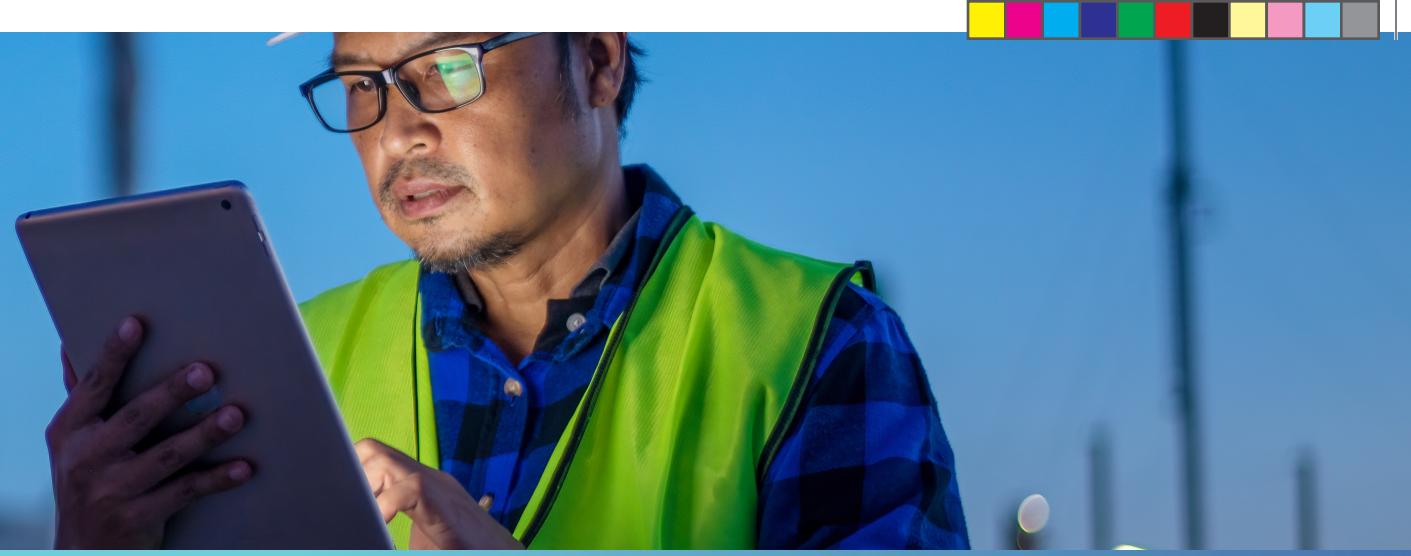
6 Cloud & Enterprise Integration

Send OT data to cloud and enterprise tools without staging.

- Streams real-time and historical data to analytics/databases
- Avoids ETL complexity and delays
- Supports hybrid, edge, and full-cloud use cases

Built for Real-World Industrial Architectures

Each element of the Matrikon Data Broker platform is designed for secure, flexible, and scalable deployment across your enterprise infrastructure.



Secure OT Data Across Zones

Enforce security without opening inbound OT firewall rules.

Initiate connections outbound from OT to respect DMZ boundaries and minimize attack surfaces. Encrypt all data and govern user access through roles and permissions, giving IT full control without disrupting OT workflows.

Scale Seamlessly Across Distributed Sites

Federate multiple MDB Core nodes across plants, regions, and clouds.

Create a true enterprise-wide Unified OT Data Layer, locally autonomous, centrally orchestrated, and ready to expand with your business.

Standardize OT Connectivity Enterprise-Wide

Adopt open-standards-based connectivity to avoid vendor lock-in.

MDB supports OPC UA, MQTT, and more, connecting easily to both new and existing equipment without proprietary interfaces.

Preserve and Enrich Context Dynamically

Map live OT data to reusable data models across systems and sites.

Build multiple logical views of your OT data to suit different consumers. Merge and structure data across heterogeneous sources to adapt the OT data layer to your needs.

Modernize Without Ripping and Replacing

Connect legacy OPC Classic systems securely with the OPCtoUA MDB Adapter.

With this adapter, aging systems stay in place and provide full OPC UA accessibility without required changes to legacy devices.

Feed Cloud Applications Directly

Stream high-context, structured OT data to cloud services via MQTT.

Use the MDB Publisher Extension to push OPC UA-formatted data to MQTT brokers and cloud-native systems, minimizing ETL layers and duplication.

Manage and Monitor From Anywhere

Deploy, configure, and access all MDB nodes from a central location.

Chain nodes securely across sites and manage them remotely, maintaining full visibility, control, and lifecycle governance.

Protect Source Systems and Ensure Resilience

Abstract connections to OT sources and run with built-in redundancy.

Reduce load and exposure on control systems by brokering access through MDB. With redundancy support, critical workflows remain uninterrupted (even during hardware or network failures).

Level 5

External Enterprise / Cloud



Level 4

Business Network (IT)



Level 3.5

DMZ



Level 3

OT Ops



Level 2

Control Systems



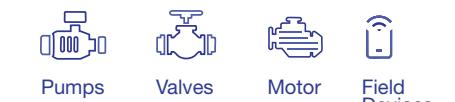
Level 1

Basic Control



Level 0

Physical Process



Secure Data Flow Across Industrial Zones

The MDB Platform fits naturally into the Purdue Model — enabling secure, scalable OT/IT/cloud integration without bypassing industrial best practices. MDB Cores and MDBAs can be deployed in L3 OT networks, L3.5 DMZs, and L4 IT networks to securely bridge operational and enterprise domains. Reverse Connect ensures no inbound OT firewall ports are required.

Real-World Applications – Where MDB Delivers

Turning OT data into
operational advantage

From global enterprises to field operations, MDB's secure, standards-based platform enables critical OT data to flow where it's needed — reliably, contextually, and at scale.



CP-Chem: Unifying Global Operations

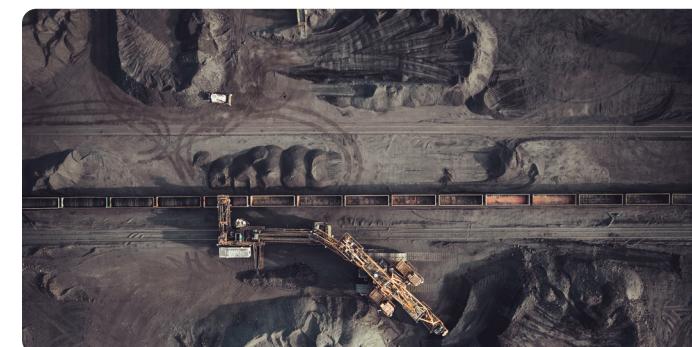
Feeding global enterprise visibility without weakening plant security.

Multiple production and lab sites across continents now deliver real-time and historical OT data into a central enterprise environment. Using MDB with OPC UA Reverse Connect, CP-Chem bridges OT and IT networks without opening inbound firewall ports, enabling enterprise-wide visibility while fully protecting plant networks.

Mining Fleet Data in Motion

Keeping autonomous haul truck data intact through connectivity gaps.

As trucks move in and out of wireless range, MDB ensures no data is lost when connections drop. On reconnection, onboard MQTT Publishers send buffered OPC UA-formatted data to the base station, keeping production planning accurate and up to date.



Oil & Gas Partner Data Sharing

Sharing only what's needed with role-based security.

Operators often need to share wellsite data with multiple partners — but only what's relevant. MDB uses fine-grained, role-based access and encryption to enable selective DA and HA sharing without exposing unrelated or confidential information.



Reverse Connect Across the Firewall

Delivering OT data securely across Purdue network boundaries.

MDB deployed in the OT DMZ connects outward to MDB in the IT/business network, enabling continuous DA and HA data access without open inbound ports — protecting security zones while ensuring critical plant data reaches business systems.



Compliance-Ready Data Access

Aligning operations with regulations like NERC CIP.

Energy companies face strict compliance demands. MDB supports them with encrypted data transport, closed inbound firewall ports, audit logging, and role-based access control — aligning with security best practices that simplify regulatory adherence.



Redundancy + Context Enrichment for Critical Systems

Ensuring uptime while adding context to legacy data.

For high-value processes, MDB provides redundancy across data sources and nodes to guarantee uninterrupted operations. At the same time, it enriches legacy OPC Classic data with engineering unit metadata, making values both reliable and meaningful.



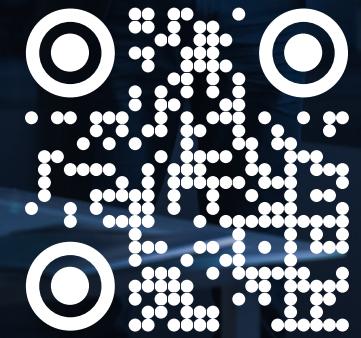
Explore more ways MDB can work for you. Visit matrikon.com for strategic insights and matrikon.com/mdb to download the software.



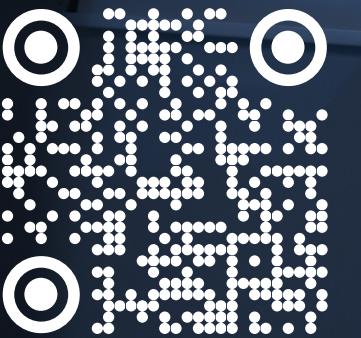
The Matrikon Difference



More Than Your Average Solution Provider



EXPLORE Matrikon
FOR OEMS



EXPLORE Matrikon
FOR PARTNERS

Matrikon exists to partner alongside organizations to put their OT data to work, overcome fragmentation, and fuel enterprise-level OT transparency that multiplies in value organization-wide.

A Legacy of Operational Transparency Leadership

For the last 25 years, we've worked beside organizations of all sizes to securely access, integrate, and leverage the full power of their operational data. From OPC UA and OPC Classic breakthroughs to embedded efficiency, Matrikon relentlessly pursues pragmatic OT data usability innovation and enterprise enablement for maximum industrial impact.

Tens of thousands of customers worldwide rely on Matrikon for secure, standards-based solutions that perform in demanding, real-world environments.

Solutions For Whatever Tomorrow Brings

We solve operational data problems for every kind of organization. With a full suite of solutions that extend past our Matrikon Data Broker enterprise offerings, Matrikon engineers products that support wherever your ambition takes you.



Partnership, Progress, and Continuity

Matrikon's commitment doesn't end at deployment. From expert-led guidance and partner integration to open standards and ongoing innovation, we're here to help extract the most from your OT data.



Global Reach, Local Commitment

Matrikon partners with trusted integrators experienced in deploying MDB across diverse industries, ensuring smooth scalability and compliance with technical, security, and operational requirements.



Commitment to Open Standards

Supporting OPC UA, MQTT, and other open standards, we help organizations integrate diverse assets while retaining full flexibility and control of their data.



Support That Fits Your Needs

Matrikon offers tiered support led by experts fluent in both OT and IT. Whether you need rapid response or long-term guidance, every engagement is responsive, reliable, and rooted in real-world experience.



Continuous Platform Evolution

MDB evolves continuously to meet new industrial needs, cybersecurity standards, and best practices—so customers can modernize confidently without replacing or re-engineering existing systems.



Training and Knowledge Building

Matrikon training covers every layer of OT connectivity to equip engineers, integrators, and operators to understand, expand, and maintain their deployments with confidence.

Your OT Data. Unified, Secured, Ready for Anything.

Learn more at matrikon.com or contact:
Email: opcsales@matrikon.com

